AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Previously Presented*) A method to generate a pseudo-random sequence of multi-carrier data symbols, said method comprising:

producing a pseudo-random bit sequence by repetitively generating a pseudo-random sequence of L bits, L being a first integer value;

packetizing into multi-carrier data symbols thereby using N bits of said pseudo-random bit sequence per multi-carrier data symbol, N being a second integer number, to thereby generate said pseudo-random sequence of multi-carrier data symbols,

wherein said packetizing comprises:

dividing said pseudo-random bit sequence into strings of N' bits, N' being a third integer value larger than N, wherein N is greater than or equal to two, N' differs from L-1 and from L+1, and N' is not fractionally related to L; and

using N bits out of each string of N' bits to generate a multi-carrier data symbol out of said pseudo-random sequence of multi-carrier data symbols, and leaving N'-N bits out of each string of N' bits unused.

2. (*Previously Presented*) A generator of a pseudo-random sequence of multi-carrier data symbols, said generator comprising:

scrambling means, adapted to repetitively generate a pseudo-random sequence of L bits, L being a first integer value, to thereby produce a pseudo-random bit sequence;

packetizing means, adapted to packetize into multi-carrier data symbols using N bits of said pseudo-random bit sequence per multi-carrier data symbol, N being a second integer number, to thereby generate said pseudo-random sequence of multi-carrier data symbols,

wherein said packetizing means comprises:

dividing means, adapted to divide said pseudo-random bit sequence into strings of N' bits, N' being a third integer value larger than N, wherein N is greater than or equal to two;

multi-carrier data symbol generating means, adapted to use N bits out of each string of N' bits to generate a multi-carrier data symbol out of said pseudo-random sequence of multi-carrier data symbols and to leave N'-N bits out of each string of N' bits unused; and

selection means, adapted to select said third integer value N', wherein N' differs from L-1 and from L+1, and N' is not fractionally related to L.

3. (*Previously Presented*) The ~~A multi-carrier transmitter comprising a~~ pseudo-random sequence generator <u>according to</u> ~~as defined by~~ claim 2, ~~and~~ further comprising transmitting means, coupled to said pseudo-random sequence generator, and adapted to transmit a pseudo-random sequence of multi-carrier symbols generated by said pseudo-random sequence generator over a communication channel.

4. (*Previously Presented*) <u>The pseudo-random sequence generator</u> ~~A multi-carrier transmitter~~ according to claim 3, <u>further comprising</u> ~~wherein said multi-carrier transmitter further comprises~~ communication means coupled to said selection means, and adapted to communicate said third integer value N' to a multi-carrier receiver.

5. (*Cancelled*).

6. (*Previously Presented*) <u>The</u> ~~A multi-carrier receiver comprising a~~ pseudo-random sequence generator <u>according to</u> ~~as defined by~~ claim 2, ~~and~~ further comprising:

receiving means adapted to receive a first pseudo-random sequence of multi-carrier symbols transmitted over a communication channel, and

decoding means, coupled to said receiving means and to said pseudo-random sequence generator, and adapted to decode said first pseudo-random sequence of multi-carrier symbols and a second pseudo-random sequence of multi-carrier symbols generated by said pseudo-random sequence generator.

7. (*Cancelled*).

8. (*Previously Presented*) A generator of a pseudo-random sequence of multi-carrier data symbols, said generator, comprising:

a scrambler that repetitively generates a pseudo-random sequence of L bits, L being a first integer value, to thereby produce a pseudo-random bit sequence;

a packet generator that packetizes multi-carrier data symbols using N bits of said pseudo-random bit sequence per multi-carrier data symbol, N being a second integer number, to thereby generate said pseudo-random sequence of multi-carrier data symbols,

wherein said packet generator comprises:

a divider that divides said pseudo-random bit sequence into strings of N' bits, N' being a third integer value larger than N, and wherein , wherein N is greater than or equal to two; and

a multi-carrier data symbol generator that uses N bits out of each string of N' bits to generate a multi-carrier data symbol out of said pseudo-random sequence of multi-carrier data symbols and to leave N'-N bits out of each string of N' bits unused; and

a switch that selects said third integer value N', wherein N' differs from L-1 and differs from L+1, and N' is not fractionally related to L.

9. (*Previously Presented*) The ~~A multi-carrier transmitter comprising a~~ pseudo-random sequence generator <u>according to</u> ~~as defined by~~ claim 8, ~~and~~ further comprising a transmitter, coupled to said pseudo-random sequence generator, and adapted to transmit a pseudo-random sequence of multi-carrier symbols generated by said pseudo-random sequence generator over a communication channel.

10. (*Previously Presented*) The <u>pseudo-random sequence generator</u> ~~A multi-carrier transmitter~~ according to claim 9, <u>further comprising</u> ~~wherein said multi-carrier transmitter further comprises~~ a communication device coupled to said switch, and adapted to communicate said third integer value N' to a multi-carrier receiver.

11. (*Cancelled*).

12. (*Previously Presented*) The ~~A multi-carrier receiver comprising a~~ pseudo-random sequence generator <u>according to</u> ~~as defined by~~ claim 8, ~~and~~ further comprising:

a receiver that receives a first pseudo-random sequence of multi-carrier symbols transmitted over a communication channel, and

a decoder coupled to said receiving means and to said pseudo-random sequence generator, and decoding said first pseudo-random sequence of multi-carrier symbols and a second pseudo-random sequence of multi-carrier symbols generated by said pseudo-random sequence generator.